

REMARKS

Summary of the Office Action

Claims 1, 3-4, 6-11, 13, 17, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,850,629 to Jeon (*Jeon*).

Claims 14-15 and 20-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jeon* in view of U.S. Pat. No. 6,549,642 to Sakurai (*Sakurai*).

Claims 2, 5, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jeon* in view of U.S. Pat. No. 6,879,706 to Satoh *et al.* (*Satoh*).

Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jeon* in view of U.S. Pat. No. 6,553,130 to Lemelson *et al.* (*Lemelson*).

Summary of the Response to the Office Action

Applicant argues that claims 1-17 and 19-20 are allowable as written. Claims 1-20 are presently pending.

The Rejections under 35 U.S.C. § 103(a)

Claims 1, 3-4, 6-11, 13, 17, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jeon*. Claims 14-15 and 20-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jeon* in view of *Sakurai*. Claims 2, 5, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jeon* in view of *Satoh*. Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jeon* in view of *Lemelson*.

Applicant respectfully traverses the rejections for at least the following reasons.

The Office Action rejects independent claims 1, 2, 4-5, 16-17, and 19 as obvious by relying either entirely or in part on *Jeon*. Independent claims 1 and 2 recite in part “obtaining an integral brightness by integrating a brightness of a coordinate.” Independent claims 4, 5, 16-17, and 19 recite in part “obtaining an integral brightness which is obtained by integrating a brightness of a coordinate.” The Office Action admits that “*Jeon* does not specifically mention that the brightness of an object is an integral brightness.” Nonetheless, the Office

Action asserts at page 2 that claims 1, 2, 4-5, 16-17, and 19 are obvious because *Jeon* discloses at col. 4, lines 45-49 and 58-61 “that a plurality of processes are performed to obtain a function that vertically sums brightness values in lane markers.” Based on this assertion the Office Action states that “it would have been obvious to recognize that the summation function in *Jeon* can be implemented or derived using integral brightness.” Applicant respectfully disagrees.

Rather than teaching or suggesting obtaining the brightness of an object using an integral brightness, *Jeon* teaches removing images of shadows and skid marks from the image of a lane marker when “[performing] an average brightness determination” of the lane marker. Column 3, lines 45-49. The images of shadows and skid marks are removed “after an average brightness value is determined” since they “may act as noise in the image processing.” Column 3, lines 58-61. Neither step teaches or suggests obtaining an integral brightness. The summation taught in *Jeon* is used to “determine[] a lateral lane deviation.” Col. 4, lines 56-57 and 60. This summation has nothing to do with calculating the brightness of a lane marker. *Jeon* therefore fails to teach or suggest “obtaining an integral brightness by integrating a brightness of a coordinate” or “obtaining an integral brightness which is obtained by integrating a brightness of a coordinate.”

The Office Action further relies on *Jeon* in view of *Sakurai* to reject claims 14-15 and 20-21 as obvious, on *Jeon* in view of *Satoh* to reject claims 2, 5, and 12 as obvious, and on *Jeon* in view of *Lemelson* to reject claim 16 as obvious. Applicant respectfully notes that the Office Action does not rely on *Sakurai*, *Satoh*, or *Lemelson*, either alone or combined with *Jeon* to correct the deficiencies noted above. Moreover, Applicant respectfully submits that neither *Sakurai*, *Satoh*, nor *Lemelson* can remedy the deficiencies noted above, either alone or combined with *Jeon*.

Accordingly, Applicant respectfully asserts that the rejection of independent claims 1, 2, 4-5, 16-17, and 19 under 35 U.S.C. § 103(a) should be withdrawn because *Jeon* fails to teach or suggest every feature of those claims. Furthermore, Applicant respectfully asserts

that dependent claims 3, 6-15 and 20-21 are allowable at least because of their dependence on independent claims 1, 2, 4-5, 16-17, and 19, and for the reasons set forth above.

Allowable Subject Matter

Applicant thanks the Examiner for acknowledging that claim 18 is allowable.

Conclusion

In view of the foregoing, Applicant respectfully requests reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicant's undersigned representative to expedite prosecution.

If there are any fees due in connection with the filing of this paper, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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